

**MEMORANDUM TO FILE
APPLICATIONS FOR PERMIT 34-13763 AND 34-13789**

DATE: May 15, 2003

TO: Files 34-13763 and 34-13789

FROM: Jennifer Berkey

These applications for permit propose using portions of existing surface water rights to mitigate for new groundwater use. While I agree with Ron Carlson's memorandum in theory, I think we also need to consider the Watermaster's ability to regulate the use of these rights. The Department has already approved Permit 34-7595 with a similar mitigation plan. The Watermaster will be attempting to regulate that plan for the first time this irrigation season, and we expect it to be a considerable burden for several reasons:

- 1) There are 13 surface water rights involved.
- 2) Several of the water rights are rediversions of exchange rights, and must be assessed conveyance losses.
- 3) The Watermaster does not have control over the well's diversion rate.

I believe we should develop some guidelines for such mitigation plans, in order to make them more practical for the Water Districts to implement. Some suggestions:

- 1) Limit the number of surface water rights involved in the mitigation, ideally to one right.
- 2) Require the applicant to specify the diversion rate and the number of acres committed to mitigation for each water right involved, not just a combined rate and acreage.
- 3) Require the applicant to commit all of a given water right to mitigation, rather than percentages of several.
- 4) Require that groundwater pumping cease completely when any of the mitigation surface water rights are "off" due to priority cut date. (This would eliminate the practice of proposing to mitigate with portions of later priority rights in an attempt to improve the water right as described in the December 17, 2002 letter from Harold Jones to Terry Scanlan. This would also likely reduce the number of water rights proposed for mitigation.)
- 5) Require the applicant to install lockable control works that will be controlled by the Watermaster.
- 6) Require the applicant to install an acceptable measuring device and totalizer.
- 7) Modify the existing water rights to show the portion that is committed to mitigation. Ideally this would be made obvious by changing the use from "IRRIGATION" to "MITIGATION". (This, in conjunction with #7 and #8 would eliminate commitment of the same water to mitigate two

different groundwater diversions as has occurred with Permit 34-7595 and Application 34-13789).

- 8) Require the applicant to submit copies of all mitigation water rights and associated agreements with the mitigation plan.
- 9) Do not allow any water right to be included in more than one mitigation plan. If the applicant wants to split the right to that extent, they should have to through the transfer process.
- 10) If an exchange right is offered for mitigation at its point of rediversion, the amount of water on the groundwater permit should be reduced by the average conveyance losses applicable to the surface water right. Require the applicant to submit data regarding the conveyance losses with their application.
- 11) Do not allow the applicant to use rights for mitigation that will require the application of multiple combined limits for water distribution.

**MEMORANDUM TO FILE
APPLICATION FOR PERMIT 34-13789**

DATE: May 15, 2003

TO: File 34-13789

FROM: Jennifer Berkey

The mitigation plan for Permit 34-13789 proposes that 0.15 cfs of Water Right No. 34-699C and 0.363 cfs of Water Right No. 34-700C will be used to mitigate for the new groundwater diversion. It should be noted that portions these surface water rights are already involved in the mitigation plan for another groundwater well recently installed by the applicant under Permit 34-7595. The mitigation plan for Permit 34-7595 committed 0.04 cfs of 34-699C and 0.094 cfs of 34-700C to mitigation.

The mitigation plan for Permit 34-7595 also reduced the combined place of use for rights 34-699C, 34-700C, 34-701C, 34-702C, 34-703C, and 34-704C by 40 acres and reduced the combined diversion rate by 0.877 cfs. The combined limits proposed in Item 9 of the mitigation plan for Permit 34-13789 do not account for this reduction.

Rights 34-699C and 34-700C are also affected by the conditions of Permits 34-7581 and 34-7597 and Transfer 5004. During the year the pond covered by these permits is initially filled, the combined limits associated with the surface water rights are reduced by an additional 8 acres and 0.169 cfs.

Further, rights 34-699C and 34-700C are diverted from the Big Lost River and conveyed to Warm Springs Creek via the Nielsen ditch. The amount available for the applicant to redivert at Warm Springs Creek is reduced by the conveyance losses that occur in the Nielsen ditch. The amount of the conveyance loss will be determined by the Watermaster on a weekly basis.

If this permit is approved, I believe the following issues need to be addressed:

1. The maximum amount of water available from 34-699C and 34-700C to mitigate Permit 34-13789 is 0.379 cfs (0.11 cfs + 0.269 cfs), not 0.513 cfs. The actual amount available will be less than this, because of conveyance losses in the Nielsen Ditch. Ideally, the maximum flow rate for 34-13789 would be reduced by the average shrink, however I do not believe the Water District has sufficient historic data to determine such a value. The Water District will be collecting the data this year. I believe this permit should not be approved until this data is available.
2. The combined limit in Item 9 of the mitigation plan does not account for the water already committed to mitigate Permit 34-7595. Development of a usable combined limit is difficult because the surface water rights are already involved in a similar

mitigation plan (for Permit 34-7595) that includes an additional seven water rights. I think two combined limit statements would be required as follows:

- A) During years when groundwater is diverted under Permit 34-7595, the combined limits for 34-13789, 699C, 700C, 701C, 702C, 703C, and 704C would be 2.453 cfs and 113 acres.
 - B) During years when groundwater is not diverted under Permit 34-7595, the combined limits for 34-13789, 699C, 700C, 701C, 702C, 703C, and 704C would be 3.33 cfs and 153 acres.
3. If this permit is approved, it will place a significant burden on Water District 34. The Watermaster will have to continually evaluate the amount of water actually available to the well under Permit 34-13789. Proper distribution will require him to determine which rights are on, adjust those rights for conveyance losses in the Nielsen Ditch, and ensure that none of the combined limits are exceeded. The terms of Permit 34-7595 already require the Watermaster to make a similar assessment where 13 water rights are used for mitigation. If the Department continues to approve permits with these types of conditions, I question whether the Water District will have the resources to ensure these conditions are met.
4. If this permit is approved, an acceptable measuring device and totalizing meter need to be installed and maintained by the applicant.
5. If this permit is approved, the issue of Watermaster control needs to be addressed. Unlike surface water diversion that may be controlled by setting a lockable headgate, Watermaster's do not typically control the flow from wells. In order for the Watermaster to regulate the use of groundwater based on surface water availability, the applicant must be required to install an acceptable lockable control valve. If the Watermaster is not able to set and lock the diversion, the only way for him to manage the water use is through monitoring the flow meter and totalizer, and reporting excess use to the Department.
6. If this permit is approved, the water rights associated with this permit and Permit 34-7595 should be modified to denote the amount of water used for mitigation and the amount actually remaining for surface water diversion.

In conclusion, this application for permit is an increase in the net use of water and irrigated acreage. Also, because the water rights involved in the mitigation plan are already involved in another mitigation plan, are rediverted exchange rights, and are involved in conditions of Transfer 5004, I believe that approval of this permit would create an undue burden on Water District 34.

**MEMORANDUM TO FILE
APPLICATION FOR PERMIT 34-13763**

DATE: May 16, 2003

TO: File 34-13763

FROM: Jennifer Berkey

This application for permit proposes using portions of existing surface water rights to mitigate for new groundwater use. The permit proposes using two existing groundwater wells and one new well as points of diversion. I noted that the applicant's consultant submitted a revised mitigation plan dated 12/26/02. The following comments are based on that mitigation plan, not the original attached to the permit.

The mitigation plan proposes using 1.50 cfs and 75 acres of Water Right No. 34-483B and 0.28 cfs and 14 acres of Water Right No. 34-10282 to mitigate the new groundwater use. While this mitigation plan is an improvement over the original plan, it will still be difficult for the Watermaster to monitor the water use. Water Right No. 34-483B has combined limits with three other surface water rights and one existing groundwater right. Water Right No. 34-10282 has combined limits with one different surface water right and another existing groundwater right. There are also several different points of diversion involved in these two groups of rights. The permit application also states that a third well would be added.

If this permit is approved, it would probably have to include combined limits that would encompass a total of nine water rights. In order for the Watermaster to determine the proper distribution of water, he would have to consider six surface water rights and three groundwater rights. This would involve three or more surface water diversions and three groundwater wells. The Watermaster would also have to check three different sets of combined limits.

Further, right 34-10282 is diverted from the Big Lost River and conveyed to Warm Springs Creek via the Nielsen ditch. The amount available for the applicant to redivert at Warm Springs Creek is reduced by the conveyance losses that occur in the Nielsen ditch. The amount of the conveyance loss determined by the Watermaster on a weekly basis would also need to be considered in determining the amount of water available to be diverted under this permit.

The two existing groundwater wells do not have measuring devices or lockable control works. If this permit is approved, the applicant must be required to install and maintain measuring devices, totalizers, and lockable control works on the two existing wells and the new well.

Because of the proposed mitigation plan, associated combined limits, number of wells involved, and the assessment of conveyance losses to right 34-10282, I believe approval of this permit would create a significant burden on Water District 34. The terms of a

similar existing permit (34-7595) already require the Watermaster to make a similar assessment where 13 water rights are used for mitigation. If the Department continues to approve permits with these types of conditions, I question whether the Water District will have the resources to ensure these conditions are met.

The complications associated with this permit could be reduced if the applicant were willing to make the following changes:

1. Offer the full 1.78 cfs and 89 acres of mitigation from Water Right No. 34-483B.
2. Eliminate the well used by right 34-7155 as a point of diversion.

These changes would eliminate the need for different flow rates for different priority cut dates (the new permit would either be "on" or "off"), eliminate the conveyance loss issue associated with 34-10282, and eliminate rights 34-7155, 34-10282, and 34-805 from combined limits associated with this permit (note that if #2 is not applied, then the Watermaster will still have to consider these because of the shared POD).

Even if these two changes were made, the Watermaster would still have consider combined limits associated with four surface water rights and one other groundwater right.

WD 34 2003

Diversion rate in cfs

[illegible][illegible][illegible]